Osama Eisa Mohawesh, Ph.D.
Full Professor
Water Resources and Environmental Engineering
Dean, Deanship of Scientific Research
Department of Plant Production, Facluty of Agriculture
Mutah University, P. O. Pox (7), Karak 61710, Jordan
E-mail: osama.mohawesh@gmail.com, osama@mutah.edu.jo
Telephone.: Home: +962-79-7408855, Office +962-3-2372380 ext 6117, Fax +962-3-2370706
Researchgate: https://www.researchgate.net/profile/Osama_Mohawesh
Academia: https://mutah.academia.edu/OsamaMohawesh
Linkedin: https://jo.linkedin.com/pub/osama-mohawesh/18/31b/56a
Google scholar: http://scholar.google.com/citations?user=FNnxaQQAAAAJ&hl=en

Educational Background

Date	Educational institute	Country	Major	Degree
April 2004-March 2007	Tokyo University of Agriculture and Technology	Japan	Biosystem Engineering (Irrigation and Draiange)	Ph.D.
April 2002-March 2004	Utsunomiya University	Japan	Water Resources and Environmental Engineering	M.Eng.
Aug. 1991-June 1996	Jordan University of Science and Technology	Jordan	Water Resources and Environmental Engineering	B.Eng.

Honors & Awards

Date	Awards
1991-1996	Royal Award scholarship for undergraduate study, **Jordan.**
2001-2007	Research and study scholarship from Japan Ministry of higher education for postgraduate study (M.Eng. &Ph.D.), **Japan.**
June 2010- Sep. 2010	Research scholarship from German Research Foundation (DFG) to Rostock University, **Germany.**

June 2011- Sep. 2011	Research scholarship from German Research Foundation (DFG) to Rostock University, **Germany.**
June 1-June 15 2012	Research and training visit to Ministry of Environment and Conservation/ Water Resource Management Division, Newfoundland, **Canada.**
June 2012- Sep. 2012.	Research scholarship from German Academic for Exchange Services (DAAD to Braunschweig University of Technology, **Germany**.
March 2015-Jan. 2016	Research scholarship from Japan Society for the Promotion of Science (JSPS), Kyoto University, **Japan.**
May 2016- Aug. 2016	Research scholarship from Norman E. Borlaug International Agricultural Science and Technology Fellowship Program (Borlaug Fellowship), U.S. Department of Agriculture (USDA), University of Georgia, **USA.**

Courses Tuaght

- **Faculty of Agriculture**

✓ Soil science
✓ Irrigation and drainage
✓ Plant soil, water relationship
✓ Seminar course
✓ Experimental Design
✓ Soil Fertility and Fertilizers

- **Faculty of Engineering/Civil Engineering Department**

✓ Hydrology
✓ Water Resources Engineering

Teachig Experience

Date	Positions / Work experience
Sep. 2017 -present	**Professor,** Department of Plant Production, Faculty of Agriculture, Mutah University.
Jan. 2014- Jan. 2015	**Lecturer,** Dept. of Civil Engineering, Faculty of Engineering, Mutah University.
Sep. 2012- Aug. 2017	**Associate Professor,** Department of Plant Production, Faculty of Agriculture, Mutah University.
April 2007- Sep. 2012	**Assistant Professor**, Department of Plant Production, Faculty of Agriculture, Mutah University. (Taught several courses in Irrigation,

	Drainage, soil science, Plant Soil, Water relationship and Seminar Course).
April 2001-March 2007	**Research Assistant,** Department of Environmental Engineering, Faculty of Agriculture, Utsunomiya University, Japan**. (**Involved in different research fields in modeling water movement, carbon sink and helping in teaching practical courses in Soil Biophysics and soil contamination).
Jan. 1998-April 2001	**Laboratory supervisor and teaching assistant**, Department of Plant Production, Faculty of Agriculture, Mutah University. (Taught several laboratories in Irrigation and drainage, Soil science, Plant Soil, Water relationship and Irrigation system design).

Administrative Working Experience

Date	Positions
April 2019-present	**Dean**, Deanship of Scientific Research, Mutah University.
Sep. 2018–April 2019	**Vice Dean**, Deanship of Scientific Research, Mutah University.
Sep. 2016 –Aug. 2017	**Vice Dean**, Faculty of Agriculture, Mutah University.
Sep. 2013- Aug. 2015	**Director,** Prince Faisal Center for Dead Sea, Environment and Energy Research, Mutah University,
Sep. 2011- Sep. 2012	**Director Deputy,** Prince Faisal Center for Dead Sea, Environmental and Energy Research, Mutah University,
Sep. 2010- Sep. 2011	**Head of Plant Production Department**, Faculty of Agriculture, Mutah University.
Sep. 2009- Sep. 2010	**Assistant Dean for student affairs,** Faculty of Agriculture, Mutah University.
April 2001- March 2007	**Research Assistant,** Department of Environmental Engineering, Faculty of Agriculture, Utsunomiya University, Japan**. (**Involved in different research fields in modeling water movement, carbon sink and helping in teaching practical courses in Soil Biophysics and soil contamination).

Membership in Professional Committees

- ❖ Member, Mutah University Dean's Council, Mutah University, 2018- Present.
- ❖ Member of the Editorial Board of Mutah University Humanities Journal for Research and Studies, 2018-present.
- ❖ Member of the Editorial Board of Mutah University Natural and Applied Journal for Research and Studies, 2018-present.
- ❖ Member of the Higher Scientific Research Commitee Board of Mutah University, 2016-present.
- ❖ Member of the Higher Graduate study Commitee Board of Mutah University, 2016-present.
- ❖ Member of Journals approval for promotion and publication improvement.
- ❖ Member of Agriculture Faculty board, 2015-2017.
- ❖ Head of Higher Eduaction committee at Department of Plant Production, 2015-2017.
- ❖ Head of Higher committee of Qs and THE at Mutah University.

Publications: In Refreed Journals

No.	Article	Impact Factor/ Scopus Rank*(2019)
1	Balasmeh A., Gharaibeh M., **Mohawesh O.,** Alajlouni M., Quzaih M., Masad M., El Hanandeh A. (2020). Characterization and Artificial Neural Networks Modelling of methylene blue adsorption of biochar derived from agricultural residues: Effect of biomass type, pyrolysis temperature, particle size. Journal of Saudi Chemical Society (Accepted manuscript).. https://doi.org/10.1016/j.jscs.2020.07.005	**3.517 (Q1)**
2	**Mohawesh O.,** Balasmeh A., Al-Hamaiedeh H., Qaraleh S, Maaitah O., Bawalize A., Almajali D. (2020). Controlled land application of Olive Mill Wastewater (OMW): enhance soil indices and barely growth performance in Arid Environments. Water, Air, & Soil Pollution (Accepted manuscript). DOI: 10.1007/s11270-020-04612-z.	**1.9 (Q2)**
3	Unami K., **Mohawesh O.,** Fujihara M. (2020). Prototype and model of solar driven desalination plant in arid environment. Thermal Science 24 (2A): 903-914.	**1.574 (Q2)**

4	**Mohawesh O.,** Al-Hamaiedeh H., Balasmeh A., Qaraleh S., Haddadin M. (2019). Effect of olive mill wastewater (OMW) application on soil properties and wheat growth performance under rain-fed conditions. Water, Air, & Soil Pollution (Accepted manuscript). DOI://doi.org/10.1007/s11270-019-4208-8	**1.9 (Q2)**
5	Koichi U., **Mohawesh O.,** Fadhil R. (2019). Time periodic optimal policy for operation of a water storage tank using the dynamic programming approach. Applied Mathematics and Computation 353: 418-431.	**3.472 (Q1)**
6	**Mohawesh O.,** Durner W. (2019). Effect of bentonite, hydrogel and biochar on soil hydraulic properties and water holding capacity from saturation to oven dryness. Pedosphere 29(5): 598-607	**3.736 (Q1)**
7	Alamro M., Mahadeen A., **Mohawesh O.** (2019). Effect of degradable mulch on tomato growth and yield under field conditions. Bulgarian Journal of Agricultural Science 25 (6): 1122–1132.	**0.50 (Q3)**
8	**Mohawesh O.,** Coolong T., Aliedeh M., Qaraleh S. (2018). Greenhouse evaluation of biochar to enhance soil properties and plant growth performance under arid environment. Bulgarian Journal of Agricultural Science 24 (6): 1012-1019	**0.50 (Q3)**
9	Miller L., Vellidis G., **Mohawesh O.,** Coolong T. (2018). Comparing a Smartphone Irrigation Scheduling Application with Water Balance and Soil Moisture-based Irrigation Methods: Part I—Plasticulture-grown Tomato. HortTechnology 28 (3): 354-361.	**0.651 (Q2)**
10	Unami K., **Mohawesh O.** (2018). A unique value function for an optimal control problem of irrigation water intake from a reservoir harvesting flash floods. Stochastic Environmental Research and Risk Assessment 32 (11): 3169-3182.	**2.807 (Q1)**

11	**Mohawesh O.,** Janssen M., Lennartz B. (2017). Assessment of structured and homogenized soil samples effect on soil hydraulic properties. Eurassian Soil Science 50 (9): 1077-1085.	**1.269 (Q2)**
12	**Mohawesh O.** (2016). Utilizing deficit irrigation to enhance growth performance and water-use efficiency of eggplant in arid environments. Journal of Agricultural Science and Technology 18 (1): 265-276.	**0.889 (Q2)**
13	Mohawesh O. (2016). Field evaluation of deficit irrigation on tomato growth performance, water use efficiency, and control of parasitic nematode infection. South African Journal of Plant and Soil 33(2): 125-133.	**0.443 (Q3)**
14	Karajeh M., Mohawesh O. (2016). Root-Knot Nematode (Meloidogyne javanica) – Deficit Irrigation Interactions on Eggplant Cropped under Open Field Conditions. Journal of Horticultural Research 2016, vol. 24(1): 73-78	**(Q3) SJR 0.21**
15	**Mohawesh O.,** Karajeh M. (2015). Greenhouse evaluation of deficit irrigation on the growth of tomato and eggplant and their interactions with Meloidogyne javanica. South African Journal of Plant and Soil 32(1): 55-60.	**0.443 (Q3)**
16	Koichi U., **Mohawesh O.,** Sharifi E., Takeuchi J., Fujihara M. (2015). Stochastic modelling and control of rainwater harvesting systems for irrigation during dry spells. Journal of Cleaner Production 88:185-195.	**7.246 (Q1)**
17	**Mohawesh O.,** Karajeh M. (2014). Effects of deficit irrigation on growth performance of tomato and eggplant and their infection with the root-knot nematode (Meloidogyne javanica) under controlled conditions. Archives of Agronomy and Soil Science 60 (8):1091-1102.	**1.780 (Q2)**
18	**Mohawesh O.,** Mahmoud M., Janssen M., Lennartz B.	**2.540**

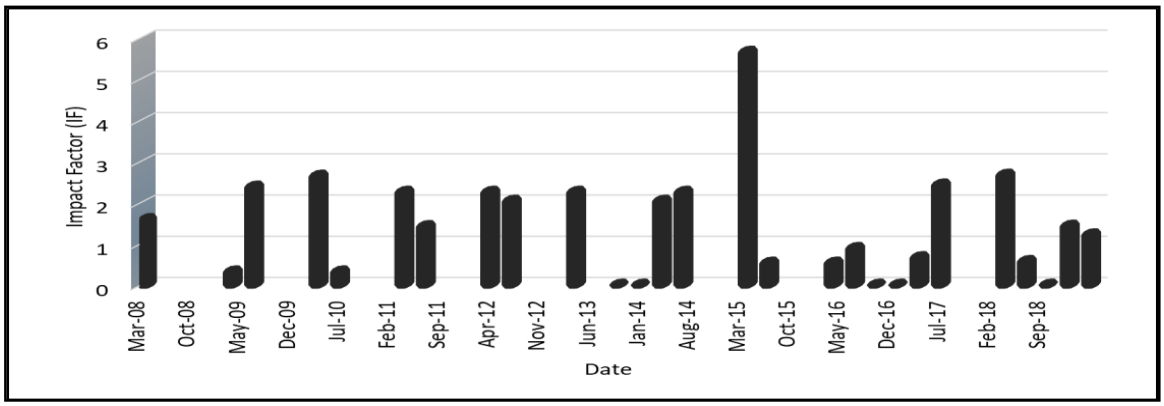
	(2014). Effect of irrigation with olive mill wastewater on soil hydraulic and solute transport properties. International Journal of Environmental Science and Technology 11:927-934.	**(Q2)**
19	**Mohawesh O.** (2014). Development of pedotransfer function for estimation soil retention curves and saturated hydraulic conductivity in the Jordan valley. Journal of Agricultural sciences 10(1) : 67-82.	-
20	**Mohawesh O.** (2013). Assessment of Pedotransfer Functions (PTFs) in Predicting Soil Hydraulic Properties under Arid and Semi Arid Environments. Journal of Agricultural sciences 9(4): 475-492.	-
21	Tadros M., AL-Mefleh N., **Mohawesh O.** (2012). Effect of irrigation water quality on Leucaena germination and early growth stage. International Journal of Environmental Science and Technology 9(2):281-286.	**2.540 (Q2)**
22	**Mohawesh O.** (2011). Evaluation of evapotranspiration models for estimating reference evapotranspiration in arid and semiarid environments. Plant Soil and Environment 57(4): 145-152.	**1.324 (Q2)**
23	**Mohawesh O.** (2013). Artificial neural network for estimating monthly evapotransiration in arid and semi arid environments. Archives of Agronomy and Soil Science 59 (1): 105-117.	**1.780 (Q2)**
24	**Mohawesh O.** Talozi S. (2012). Comparison of Hargreaves and FAO56 equations for estimating monthly evapotranspiration for semiarid environment. Archives of Agronomy and Soil Science 58(3): 321-334.	**1.780 (Q2)**
25	Mahadeen A., **Mohawesh O.,** Al-Absi K., and Al-Shareef W. (2011). Effect of irrigation regimes and frequency on water use efficiency and tomato fruit (Lycopersicon	**1.780 (Q2)**

	esculentum Mill.) grown under an arid environment. Archives of Agronomy and Soil Science 57: 105-114.	
26	**Mohawesh O.,** Al-Absi1 K. , Tadros M. (2010). Effect of antitranspariant application on physiological and biochemical parameters of three orange cultivars grown under progressive water deficit. Advances in Horticultural Sciences 24(3): 183-194.	**0.49**
27	**Mohawesh O.** (2010). Spatio-temporal calibration of Blaney-Criddle equation for calculating ETo in arid and semiarid environment. Water Resources Management 24: 2187–2201.	**3.404**
28	Al-Absi K., **Mohawesh O.** (2009). Olive oil mineral content of two local genotypes as influenced by recycled effluent irrigation under arid environment. Journal of the Science Food and Agriculture 89 (12): 2082-2087.	**2.463**
29	**Mohawesh O.,** Al-Absi K. (2009). Physiological response of two apple genotypes to different water regimes under semiarid conditions. Advances in Horticultural Sciences 23(3): 158-165.	**0.49**
30	**Mohawesh O.,** Ishida T., Fukumura K., Yoshino K. (2008). Assessment of spatial variability of penetration resistance and hardpan characteristics in a Cassava field. Australian Journal of soil Research 46(3): 210-218.	**1.569**
31	**Mohawesh O.,** Fukumura K., Ishida T., Yoshino K. (2005).Assessment of spatial variability of soil and canopy properties in a Cassva field. Journal of Japan Society of Hydrology and Water Resources 18 (5): 501-509.	**-**
32	**Mohawesh O.,** Fukumura K., Ishida T., Yoshino K. (2005). Soil hydraulic properties in a Cassva field as a function of dry bulk density. Journal of Japan Society of	**-**

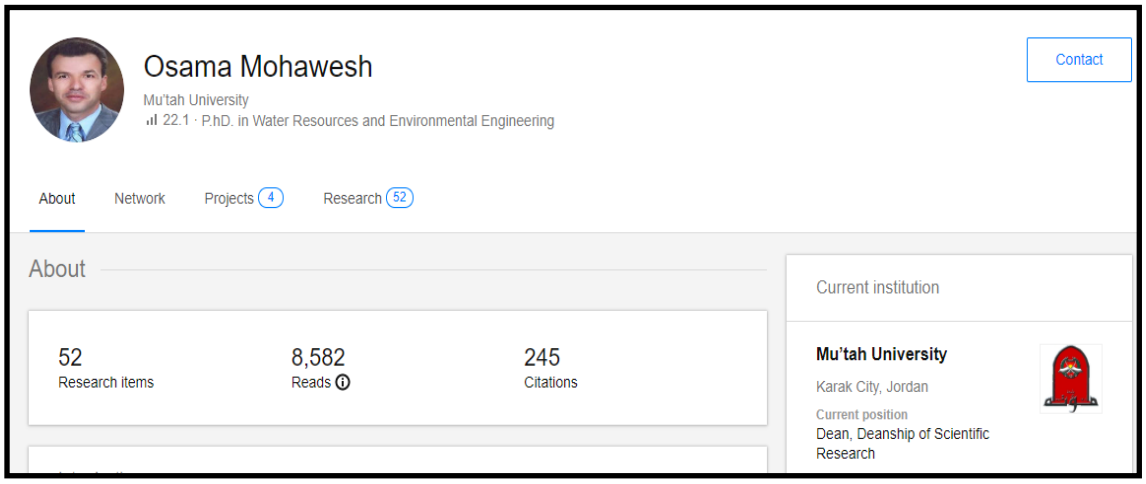
	Hydrology and Water Resources 18 (2): 156-166.	

A. <u>My own statistics of my publications in refreed Journals:</u>

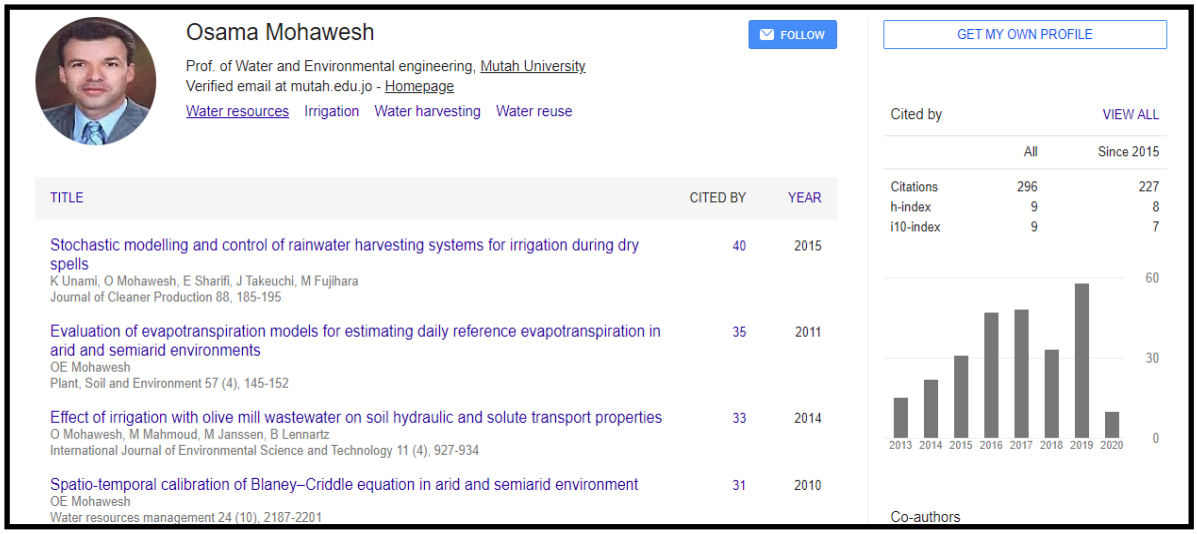
I have published 27 articles in international refreed and well recognized Journals in the fields of Irrigation, water resources management, wastewater reuse, on-farm water use efficiency, smart irrigation and sustainable Agriculture. The following chart presented my published articles details.



B. **<u>Considering ResearchGate® statics:</u>** Researchgate® is an academic social site for scientists and researchers where its **<u>RG SCORE</u>** is a single number that is attached to a researcher's profile and score the level of researcher's work and scientific networking.



C. **Considering Google Scholar statics:** Google scholar provides the **h-index** which is a researcher level metrics that measure both productuvutity and citation impact of the author publications along with **i10-index** and Citaions.



Osama Mohawesh

FOLLOW

GET MY OWN PROFILE

Prof. of Water and Environmental engineering, Mutah University
Verified email at mutah.edu.jo - Homepage

Water resources Irrigation Water harvesting Water reuse

TITLE	CITED BY	YEAR
Stochastic modelling and control of rainwater harvesting systems for irrigation during dry spells K Unami, O Mohawesh, E Sharifi, J Takeuchi, M Fujihara Journal of Cleaner Production 88, 185-195	40	2015
Evaluation of evapotranspiration models for estimating daily reference evapotranspiration in arid and semiarid environments OE Mohawesh Plant, Soil and Environment 57 (4), 145-152	35	2011
Effect of irrigation with olive mill wastewater on soil hydraulic and solute transport properties O Mohawesh, M Mahmoud, M Janssen, B Lennartz International Journal of Environmental Science and Technology 11 (4), 927-934	33	2014
Spatio-temporal calibration of Blaney–Criddle equation in arid and semiarid environment OE Mohawesh Water resources management 24 (10), 2187-2201	31	2010

Cited by VIEW ALL

	All	Since 2015
Citations	296	227
h-index	9	8
i10-index	9	7

Co-authors

CONFERENCES

1. **Mohawesh O.,** Al- Hamaiedeh H., Qaraleh S. 2018. Effect of olive mill wastewater (OMW) application on soil properties, and plant growth performance under rainfed condition. The 13th Conference on Sustainable Development of Energy, Water and Environment Systems - SDEWES Conference, Palermo, Italy.
2. Unami K., **Mohawesh O.** 2018. A prototype of micro irrigation scheme in the Jordan Rift Valley and its mathematical modelling. International Green Capitals Congress, 8-12 May, Konya, Turkey.
3. **Mohawesh O.,** Aliedeh M. 2017. The potential use of biochar to enhance soil properties and plant growth performance under arid environment. The Fifth Arab-American Frontiers Symposium, 2-4 November, Rabat, Morocco.
4. **Mohawesh O.,** Al-Hamaiedeh H., Qaraleh S., Haddadin M., Almajali D., Bawalize A. 2017. Effect of olive mill wastewater (OMW) application on soil properties, and plant growth performance under rainfed condition. International Conference on Water Management in Arid and Aemi-arid Land, 7-10 October, Irbid, Jordan.
5. **Mohawesh O.,** Unami K., Fujihara M. 2016. Designing and modeling on-farm desalination system using dew collection technology. The Third International Conference on Agricultural and Food Engineering (CAFEi2016), 23-25 August, Kuala Lumpur, Malaysia.

6. Miller L., Coolong T., Vellidis G., Porter W., Smith E., **Mohawesh O.** 2016. Alternative Irrigation Scheduling: Kc and SMS based watering effects on watermelon production. The ASHS Annual Conference, American Society for Horticultural Science, 8-11 August, Atlanta, Georgia, USA.

7. Sharifi E., Koichi U., **Mohawesh O.,** Fujihara M. 2016. Operational rules for micro-dams solving stochastic control problems. Water Resources in Arid Areas: The Way Forward, Sultan Qaboos University, Muscat, Oman.

8. Sharifi E., Unami K., **Mohawesh O.,** Nakamichi T., Kinjo N., Fujihara M. 2015. Design and construction of a hydraulic structure for rainwater harvesting in arid environment. E-proceedings of the 36th IAHR World Congress 28 June – 3 July, The Hague, the Netherlands.

9. **Mohawesh O.,** Batarseh M., Jiries A., El-Hasan T., Al-Hamideh H., Khan H. 2014. Transboundary Water Governance and Climate Change in the Hashemite Kingdom of Jordan. Aqaba International Conference on Marine and Coastal Environment, Status and Challenges in the Arab World, 27-29 October, Aqaba, Jordan.

10. Koichi U., **Mohawesh O.,** Sharifi E., Takeuchi J., Fujihara M. 2013. Optimal irrigation strategies in rainwater harvesting systems during dry spells. The 8th Conference on Sustainable Development of Energy, Water and Environment Systems-SDEWES Conference, 22- 27 September, Dubrovnik.

11. **Mohawesh O.,** M. Mahmoud and B. Lennartz. 2011. Long-Term Application of Olive Mill Wastewater Alters Soil Hydraulic and Solute Transport Properties. MALTA Conferences Foundation Malta V Conference, December 8, UNESCO, Paris, France.

12. **Mohawesh O.,** Fukumura K., Ishida T. 2004.Spatial variability of soil hydraulic properties and canopy properties in a Cassava field in Thailand. Proceedings of Participatory Strategy for Soil and Water Conservation Conference, ERECON, Tokyo, Japan.

M. Sc. Supervision (Advisor & co-advisor)

1. Altarawneh, R. 2010. Physiological responses of apple tress to interactive effect of irrigation deficit and salinity. (Mutah University).
2. Isra, M.. 2013. Assess the impact of Olive Mill Wastewater on the Environment and its Potential Use by the Local Community in Northern of Jordan. (Jordan University of Science

and Technology).

3. Bayan, A . 2015. The potential use of biochar to enhance soil properties and plant growth performance. (Mutah University).

4. Nour Kfaween. 2017. The potential use of biochar to enhance soil properties and plant growth performance.

5. Mysoon Al-amer. 2018. Effect of degradable plastic mulch on tomato growth and yield under field condition

P.hD. Supervision (Advisor & co-advisor)

1. Maram, A. 2016. Effect of soil amendment with olive mill wastewater (OMW) on soil properties, soil humic content and plant growth performance under semi-arid conditions. Jordan University.

M. Sc. Examination Committee

1. Ismeel, D. 2013. (Mutah University)
2. Aza, N. 2013. (Jordan University of Science and Technology).
3. Habib, L. 2014. (Jordan University of Science and Technology).
4. Mubeideen, M. 2018. (Mutah University).
5. Ghadi, A. 2018. Olive mill wastewater treatment produced from olive mills using Moringa seeds as a natural coagulant. (Jordan University of Science and Technology).
6. Ashour, A. 2018. Effect of Salvia spinosa L. seeds extract on the physical and hydraulic properties of sandy soil. (Jordan University of Science and Technology).

Ph.D. Examination Committee

1. Mahmoud, M. 2011. Long-term impact of olive mill wastewater (OMW) irrigation on soil hydraulic properties. (Germany, Rostock University).
2. Fatima, B. K. 2018. Evaluation of the DSSAT Vertical Drainage Model for Vertisols. (Jordan, University of Jordan).

MEMBERSHIP

- Higher studies committee
- Jordan Engineers Association (1996-until now)

RESEARCH PROJECTS

- **Japan Society for promotion Science (JSPS),** ***Novel methods to develop renewable water resources, to mathematically model their dynamics together with that of existing water resources, and to deduce and validate optimal water resources portfolio***. In collaboration with Kyoto University, Graduate School of Agriculture, Water Resources Division.

- **Japan Society for promotion Science (JSPS),** ***A novel dew collection method in harsh environment,*** In collaboration with Kyoto University, Graduate School of Agriculture, Water Resources Division.
- **NATO,** ***Transboundary water resources and climate change in Jordan.*** In collaboration with Ministry of Enviroment and Conservation, Water Resources Management Division, Newfoundland and Labrador, Canada.
- **EU-SRTD-II,** ***Utilizing Biochar Technology for sustainable agriculture and water resources management in Jordan,*** In collaboration with National Center for Agricultural Research and Extension.
- **Scientific Research fund (SRF), Ministry of Higher Education,** ***Effect of amendment with olive mill wastewater on soil properties, soil humic content and plant growth performance under semi arid conditions***. In collaboration with National Center for Agricultural Research and Extension.
- **Scientific Research fund (SRF), Ministry of Higher Education,** ***Effect of Deficit Irrigation regimes on root-knot nematode and its host plant. Jordan Scientific Research Fund.*** In collaboration with Jordan valley Authority.
- **Scientific research fund, Mutah University,** ***Evaluation and development of Pedotransfer Functions (PTF) for predicting Soil Moisture Retention Curve (MRC), available water and saturated hydraulic conductivity (Ks) for Jordanian agricultural soils***. In collaboration with Jordan valley Authority.
- **ICARDA,** ***Water scarcity and sustainable growth: Using water harvesting techniques, pitcher irrigation and greywater to combat desertification, building green belts to improve livelihood opportunities for people through securing food in arid regions.*** In collaboration with National Center for Agricultural Research and Extension and Jordan University of Science and Technology.

Journal Referee

- ✓ Journal of Hazardous materials
- ✓ Scientia Horticulturae
- ✓ Agricultural water management
- ✓ Archive of Agronomy and Soil Science
- ✓ Clean- Soil, Air, Water
- ✓ Jordan Journal of Agriculture Science
- ✓ Archive of Agronomy and Soil Science

REFERENCES

☒ **Prof. Ishida Tomoyasu,** Prof. of Environmental Biophysics, Department of Environmental Engineering, Faculty of Agriculture, Utsunomiya University, Japan. E. mail: ishidat@cc.utsunomiya-u.ac.jp

☒ **Prof. Fukumura Kazunari,** Prof. of Geotechnical Engineering and Civil Engineering, Department of Environmental Engineering, Faculty of Agriculture, Utsunomiya University, Japan. E. mail: fukumura@cc.utsunomiya-u.ac.jp

☒ **Dr. Unami Koichi,** Prof. of Water resources management, Computational hydraulics, Graduate School of Agriculture, Kyoto University, Japan. E. mail: unami@adm.kais.kyoto-u.ac.jp

☒ **Prof. Husam Al-Hamaideh,** Prof. of Water Resources and Environmental Engineering, Department of Civil Engineering, Faculty of Engineering, Mutah University, Jordan. E. mail: husamh@mutah.edu.jo

☒ **Prof. Anwar Jiries,** Professor of Hydrology, Chemistry Department, Faculty of Science, Mutah University, Jordan. E-mail: jiries@mutah.edu.jo

Additional Information

Languages

Arabic: Mother Tongue

English: Very Good

Japanese: Good